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10/772,436	02/06/2004	Koichi Shibata	018987-055	6119
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EXAMINER				
MILLA, MARK R				
ART UNIT		PAPER NUMBER		
2625				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com
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Office Action Summary

Application No.

10/772,436

Applicant(s)

SHIBATA ET AL.

Examiner

Mark R. Milia

Art Unit

2625

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-912)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/10/10 has been entered. Currently, claims 1-23 are pending.

Response to Arguments

2. Applicant's arguments filed 11/10/10 have been fully considered but they are not persuasive.

The applicant asserts that Mihira (US 2004/0070782) fails to disclose a combination wherein "the external API program includes a second API for receiving a third request relating to image processing from an external source, converts the received third request to a command supported by the first API, and passes the command as the first request to the control layer, bypassing the one or more application programs of the application group stored in the application layer," as recited in claims 1 and 13. The Examiner respectfully disagrees as Mihira does disclose such a feature.

Particularly, Mihira states that NIC **69** is an interface device connecting the composite machine **1** with a communication network such as the Internet and as such a network apparatus **100** can perform communication with composite machine **1** via the Internet to communicate with document management service **123** and printing service **130**, both of which may be provided in the control service layer **9**. Therefore, after a request is received by external API (NCS **31**) via NIC **69** the network apparatus **100** communicates directly with control service layer **9** which provides document management service **123** and printing service **130** thereby bypassing the one or more application programs (paragraphs 93 and 99).

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-23 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent Application Publication No. 2004/0070782 to Mihira.

Claims 1, 7, 13, and 18 set forth three different hierarchical architectures for the hardware resource, a first control program, a second control program, and an application program. However, Mihira discloses only one hierarchical architecture but Mihira does state that variations and modifications can be made without departing from the scope of the invention (paragraph 212) and it is common in the art to rearrange

processing parts without changing the overall function of the system. This is the case with the instant invention in that Mihira discloses a hierarchical architecture that serves the same purpose and functions the same as the hierarchical architectures of claims 1, 7, and 13.

Regarding claim 1, Mihira discloses an image processing apparatus comprising: a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit (see Fig. 1 and paragraph 58), a control layer (see Fig. 1 and paragraph 63-64, control service layer **9**), an external API (application program interface) program (see Fig. 1 and paragraph 66-67, NCS **31**), and an application group including one or more application programs stored in an application layer (see Fig. 1 and paragraph 60, applications **21-24**), wherein the hardware resource, the control layer, the external API program and the application group are arranged in such a hierarchical architecture that the control layer is superordinate to the hardware resource, and the application group including the one or more application programs and the external API are superordinate to the control layer (see Fig. 1), the control layer includes a first API for receiving, with use of a predefined function, a first request relating to image processing from the external API program and a second request relating to image processing from the one or more application programs, and controls, on receiving either of the first and second requests, the hardware resource to perform image processing based on the received request (see paragraphs 59-63, 65, 71, and 89-91, a host computer can request document printing through communication with document management service **123** which is SF **28** and the control service layer **9**

interprets processing requests sent from the application layer **5**, of which WEB page application **25**, SOAP communication application **26**, WSF **27**, and SFs **28** are a part of, thus, the second control program (any of WEB page application **25**, SOAP communication application **26**, WSF **27**, and SFs **28**) passes received processing requests to the first control program (any of control service layer **9**) as control service layer **9** is responsible for management and performance of the hardware resources), and the external API program includes a second API for receiving, a third request relating to image processing from an external source, converts the received third request to a command supported by the first API, and passes the command as the first request to the control layer, bypassing the one or more application programs of the application group stored in the application layer (see paragraphs 66-67 and 89-99, NIC **69** is an interface device connecting the composite machine **1** with a communication network such as the Internet and as such a network apparatus **100** can perform communication with composite machine **1** via the Internet to communicate with document management service **123** and printing service **130**, both of which may be provided in the control service layer **9**. Therefore, after a request is received by external API (NCS **31**) via NIC **69** the network apparatus **100** communicates directly with control service layer **9** which provides document management service **123** and printing service **130** thereby bypassing the one or more application programs), wherein commands, parameters, and syntax for controlling the hardware resource are released to the public for incorporation by external users into software supported by the second API (see paragraphs 61, 85, and 89-93, network apparatus **100** performs communication using

XML with the SOAP **26** which then sends the request to the WSF **27** via API **51** and the WSF **27** sends the request to SF **28** via API **52** and the SF **28** then sends the necessary information and appropriate instructions for processing to the corresponding control service layer **31-38** via API **53** for execution, such as printing of a selected document, Mihira states that the API's execute through functions previously defined and that communication between network apparatus **100** and composite machine **1** can take place via the Internet).

Regarding claim 7, Mihira discloses an image processing apparatus comprising: a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit (see Fig. 1 and paragraph 58), a control layer (see Fig. 1 and paragraph 63-64, control service layer **9**), an external API (application program interface) program (see Fig. 1 and paragraph 66-67, NCS **31**), and an application group including one or more application programs stored in an application layer (see Fig. 1 and paragraph 60, applications **21-24**), wherein the hardware resource, the control layer, the external API program and the application group are arranged in such a hierarchical architecture that the control layer is superordinate to the hardware resource, and the application group including the one or more application programs and the external API are superordinate to the control layer (see Fig. 1), the control layer includes a first API for receiving, with use of a predefined function, a first request relating to image processing from the external API program, and controls the hardware resource to perform image processing based on the received first request (see paragraphs 59-63, 65, and 71), and the external API program includes a second API for

receiving, a second request relating to image processing from an external source and a third request relating to image processing from the one or more application programs, converts, on receiving either of the second and third requests, the received request to a command supported by the first API, and passes the command as the first request to the control layer, bypassing the one or more application programs of the application group stored in the application layer (see paragraphs 66-67 and 89-99, NIC **69** is an interface device connecting the composite machine **1** with a communication network such as the Internet and as such a network apparatus **100** can perform communication with composite machine **1** via the Internet to communicate with document management service **123** and printing service **130**, both of which may be provided in the control service layer **9**. Therefore, after a request is received by external API (NCS **31**) via NIC **69** the network apparatus **100** communicates directly with control service layer **9** which provides document management service **123** and printing service **130** thereby bypassing the one or more application programs), wherein commands, parameters, and syntax for controlling the hardware resource are released to the public for incorporation by external users into software supported by the second API (see paragraphs 61, 85, and 89-93, network apparatus **100** performs communication using XML with the SOAP **26** which then sends the request to the WSF **27** via API **51** and the WSF **27** sends the request to SF **28** via API **52** and the SF **28** then sends the necessary information and appropriate instructions for processing to the corresponding control service layer **31-38** via API **53** for execution, such as printing of a selected document, Mihira states that the

API's execute through functions previously defined and that communication between network apparatus **100** and composite machine **1** can take place via the Internet).

Regarding claim 13, Mihira discloses an image processing apparatus comprising: a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit (see Fig. 1 and paragraph 58), a control layer (see Fig. 1 and paragraph 63-64, control service layer **9**), an external API (application program interface) program (see Fig. 1 and paragraph 66-67, NCS **31**), and an application group including one or more application programs stored in an application layer (see Fig. 1 and paragraph 60, applications **21-24**), wherein the control layer is arranged between the hardware resource and the application group including the one or more application programs and the external API program is arranged superordinate to the one or more application programs in the application group in a hierarchical architecture (see Fig. 1), the control layer includes a first API for receiving, with use of a predefined function, a first request relating to image processing from the external API program and a second request relating to image processing from the one or more application programs, and controls, on receiving either of the first and second requests, the hardware resource to perform image processing based on the received request (see paragraphs 59-63, 65, and 71), the external API program includes a second API for receiving a third request relating to image processing from an external source, converts the received third request to a command supported by the first API, and passes the command to an appropriate one of the control layer, and the one or more application programs, depending on the requested processing, the command passed to the control layer

serving as the first request (see paragraphs 58-63, 65-67, 71, 85, and 89-91, the API is publicly released because a network apparatus, such as a host computer receives a list of stored documents and can transmit XML data using a SOAP protocol to perform printing of a stored document, therefore the API **51** is publicly released prior to the host computer requesting document printing and thereby allows document printing requests via document management service **123**, a host computer can request document printing through communication with document management service **123** which is SF **28** and the control service layer **9** interprets processing requests sent from the application layer **5**, of which WEB page application **25**, SOAP communication application **26**, WSF **27**, and SFs **28** are a part of, thus, the second control program (any of WEB page application **25**, SOAP communication application **26**, WSF **27**, and SFs **28**) passes received processing requests to the first control program (any of control service layer **9**) as control service layer **9** is responsible for management and performance of the hardware resources), wherein commands, parameters, and syntax for controlling the hardware resource are released to the public for incorporation by external users into software supported by the second API (see paragraphs 61, 85, and 89-93, network apparatus **100** performs communication using XML with the SOAP **26** which then sends the request to the WSF **27** via API **51** and the WSF **27** sends the request to SF **28** via API **52** and the SF **28** then sends the necessary information and appropriate instructions for processing to the corresponding control service layer **31-38** via API **53** for execution, such as printing of a selected document, Mihira states that the API's

execute through functions previously defined and that communication between network apparatus **100** and composite machine **1** can take place via the Internet).

Regarding claim 18, Mihira discloses an image processing apparatus comprising: a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit (see Fig. 1 and paragraph 58), a control layer (see Fig. 1 and paragraph 63-64, control service layer **9**), an external API (application program interface) program (see Fig. 1 and paragraph 66-67, NCS **31**), and an application group including one or more application programs stored in an application layer (see Fig. 1 and paragraph 60, applications **21-24**), wherein the hardware resource and the programs are arranged in such a hierarchical architecture that the control layer is superordinate to the hardware resource, and the one or more application programs and the external API program are superordinate to the control layer (see Fig. 1), the control layer includes a first API for receiving a first request relating to image processing from the external API program and a second request relating to image processing from the one or more application programs, and controls, on receiving either of the first and second requests, the hardware resource to perform image processing based on the received request (see paragraphs 59-63, 65, and 71), and the external API program includes a second API for receiving, a third request relating to image processing from an external source, converts the received third request to a command supported by the first API, and passes the command as the first request to the control layer, bypassing one or more application programs of the application group stored in the application layer (see paragraphs 66-67 and 89-99, NIC **69** is an interface device connecting the

composite machine **1** with a communication network such as the Internet and as such a network apparatus **100** can perform communication with composite machine **1** via the Internet to communicate with document management service **123** and printing service **130**, both of which may be provided in the control service layer **9**. Therefore, after a request is received by external API (NCS **31**) via NIC **69** the network apparatus **100** communicates directly with control service layer **9** which provides document management service **123** and printing service **130** thereby bypassing the one or more application programs), wherein commands, parameters, and syntax for controlling the hardware resource are released to the public for incorporation by external users into software supported by the second API (see paragraphs 61, 85, and 89-93, network apparatus **100** performs communication using XML with the SOAP **26** which then sends the request to the WSF **27** via API **51** and the WSF **27** sends the request to SF **28** via API **52** and the SF **28** then sends the necessary information and appropriate instructions for processing to the corresponding control service layer **31-38** via API **53** for execution, such as printing of a selected document, Mihira states that the API's execute through functions previously defined and that communication between network apparatus **100** and composite machine **1** can take place via the Internet), wherein the software is used to control the hardware resource to perform processing that is not executable by the hardware resource under control of any of the one or more application programs (see paragraphs 66-67 and 89-99, NIC **69** is an interface device connecting the composite machine **1** with a communication network such as the Internet and as such a network apparatus **100** can perform communication with composite

machine **1** via the Internet to communicate with document management service **123** and printing service **130**, both of which may be provided in the control service layer **9**. Therefore, after a request is received by external API (NCS **31**) via NIC **69** the network apparatus **100** communicates directly with control service layer **9** which provides document management service **123** and printing service **130** thereby bypassing the one or more application programs).

Regarding claim 2, Mihira further discloses wherein the control layer passes the received first request to the one or more application programs if the first request is directed to the one or more application programs (see paragraphs 58-60 and 63).

Regarding claims 3 and 14, Mihira further discloses wherein the third request is data expressed in an XML (see paragraph 90).

Regarding claims 4, 10, and 15, Mihira further discloses wherein the external API program further includes: a first converting unit for extracting predetermined information from the received XML data (see paragraphs 66-67 and 90) and a second converting unit for converting the extracted information to the command supported by the first API (see paragraphs 97-99 and 102-103).

Regarding claims 5, 11, and 16, Mihira further discloses wherein upon receiving a request relating to execution of a print job, the control layer controls the image forming unit to perform the print job (see paragraphs 97-99 and 102-103).

Regarding claims 6, 12, and 17, Mihira further discloses wherein upon receiving a request relating to execution of a scan job, the control layer controls the read unit to perform the scan job (see paragraphs 58-60, 63, 65, 69, 71, and 80).

Regarding claim 8, Mihira further discloses wherein the external API program passes the received second request to the one or more application programs if the second request is directed to the one or more application programs (see paragraphs 58-60 and 63).

Regarding claim 9, Mihira further discloses wherein the second request is data expressed in an XML (see paragraph 90).

Regarding claim 19, Mihira further discloses wherein the second API is an external API for controlling operations of the hardware resource according to requests received from an external device (see paragraphs 62 and 89-90).

Regarding claims 20-23, Mihira further discloses wherein the second API includes a function callable by the external source, wherein the function calls a plurality of functions that are predefined by the control layer (see paragraphs 66-67 and 89-99, NIC **69** is an interface device connecting the composite machine **1** with a communication network such as the Internet and as such a network apparatus **100** can perform communication with composite machine **1** via the Internet to communicate with document management service **123** and printing service **130**, both of which may be provided in the control service layer **9**. Therefore, after a request is received by external API (NCS **31**) via NIC **69** the network apparatus **100** communicates directly with control service layer **9** which provides document management service **123** and printing service **130** thereby bypassing the one or more application programs).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571)272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached at (571) 272-7437. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark R. Milia
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